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(54) Smoke [smoke proofing] and gas [gas proofing] mask
[Boen Bodoku mask]

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[Amendments: There are no amendments attached to this Utility Model. Translator's note]

[Note: All names, addresses, company names, and brand names are translated in the most common manner. Japanese language does not have singular or plural words unless otherwise specified with numeral prefix or general form of plurality suffix. Translator's note]

[Stamps shown on the top left of page (1) 397 are illegible. Translator's note]

[Note: Each page of original document shows page numbers (1) 397 through (6) 402 and 403 without (numeral page), and Utility Model Kokai 60-2549 on page (1). These are omitted from the translation as pages vary from those of original document. Translator's note]

SPECIFICATION

1. TITLE OF THE UTILITY MODEL

Smoke and gas mask

2. CLAIMS

A smoke and gas mask is characterized by the fact that a cylindrical part is formed at a front plane part of main body of the mask that is equipped with a flexible face contacting part as one body, and a filtration container is arranged within this cylindrical part, and an inner circumference groove for purpose of folding is formed at inside of middle portion of above-explained main body of the mask at its middle portion, and outer circumference groove for purpose of folding is formed at outer circumference of above-explained front plane part.

3. DETAILED EXPLANATION OF THE UTILITY MODEL

[FIELDS OF THIS UTILITY MODEL]

This utility model relates to a smoke and gas mask that is used, for instance, during the time of fire that generates toxic gas or during the time of scattering chemicals such as agricultural chemicals and the like.

[TECHNICAL BACKGROUND OF THE UTILITY MODEL]

According to this type of smoke and gas masks that have been already proposed, they are structured through forming a fairly narrow and long cylindrical part at front plane part of main body of the mask that is equipped with a flexible face contacting part as one body, and a filtration container of cylindrical shape in which filtering material is packed is attached through insertion to an opening part of this cylindrical part.

And therefore, during use of above-explained smoke and gas masks, face contacting part of mask main body is capped to cover a nose and a mouth, and by doing so, it is designed to filter toxic gas that generates during the time of fire or chemicals during the time of scattering of agricultural chemicals through a filtering material to allow breathing of clean air.

[PROBLEM POINTS OF BACKGROUND TECHNOLOGY]

However, according to above-explained smoke and gas mask, as it relates to the long and narrow cylindrical part to which filtration container is attached through insertion protrudes forward to not only remain bulky when not in use but also, it is inconvenient to carry this around through, for instance, containment in one's pocket. In addition, while on the one hand, it has been desired to allow use of smoke and gas masks contained in cases in one effort with one process during the time of emergency application.

[PURPOSE OF THIS UTILITY MODEL]

This utility model was arrived based on above-explained circumstance; and it offers a smoke and gas mask with purpose of allowing folding of the entire mask to a small size in one process for convenient portability.

[OUTLINE OF THIS UTILITY MODEL]

This utility model is structured to form a cylindrical part at front plane part of main body of the mask that is equipped with a flexible face contacting part as one body, and filtration container is arranged within this cylindrical part, and inner circumference groove for folding purpose is formed at inside of above-explained main body of the mask main body at its middle portion , and outer circumference groove for purpose of folding is formed at outer circumference of above-explained front plane part to allow folding of main body of the mask in one process through following above-explained both circumference grooves to allow portability.

[EXAMPLES OF THIS UTILITY MODEL]

This utility model is explained with one example that is illustrated in the Figures.

According to the Figures 1 through 3, code (1) shows a main body of the mask that is equipped with a flexible face contacting part (1a), that is, for instance, made by a synthetic resin material; and face contacting part (1a) of this main body of mask (1) shows nearly a triangular shape, and above all, it is formed so it can cover a nose as well as a mouth. In addition, on a font plane part (1b) of above-explained main body of the mask (1), a cylindrical part (2) is formed as one body, and at inner circumference plane of this cylindrical part (2), a circumference groove (3) of which cross section shows an arc shape is formed. Furthermore, on this circumference groove (3) of cylindrical part (2), a filtration container (4) having a flange (4a) and is packed with a filtering material is arranged in a free insertion/detachment manner; and said filter material of this filtration container (4) has such arrangements from outside toward inside in the order of, for instance, steel material, nonwoven cloth, electrostatic smoke filtering material, activated carbon material, precious metal catalyst, nonwoven cloth, and sponge material.

On the one hand, inner circumference groove (5) for purpose of folding is formed inside of middle portion of above-explained main body of the mask (1), and outer circumference groove (6) for purpose of folding is formed at outer circumference of front plane part (1b) of above-explained main body of the mask (1).

Furthermore, it is preferable when distance of above-explained both circumference grooves (5) and (6) is formed as almost 1/3 of the length of the entire mask.

And therefore, as illustrated in the Figure 3, when entire mask is folded and carried at the time that is not used, it is possible to fold by pressing face contacting part (1a) of above-explained mask main body (1) and cylindrical part (2) to which filtration container (4) is attached through insertion inward by using both hands and using above-explained both circumference grooves (5), (6) as folding seam in one process.

Incidentally, according to this utility model , it is free to change its design to set the inner circumference groove (5) for purpose of folding as outer circumference groove, while on the other hand, setting the outer circumference groove (6) for folding purpose as inner circumference groove.

[EFFECTS OF THIS UTILITY MODEL]

According to this utility model explained above, because cylindrical part (2) is formed at front plane part (1b) of main body of the mask (1) that is equipped with a flexible face contacting part (1a) as one body, and filtration container (4) is arranged within this cylindrical part (2), and inner circumference groove (5) for purpose of folding is formed inside at middle portion of above-explained main body of the mask (1), and outer circumference groove (6) for purpose of folding is formed at outer circumference of above-explained front plane part (1b), when it is not in use, the entire mask can be folded in one time by using above-explained circumference groove (5), (6) as folding seams, and above all, such folding can be done not only in one process, but also it shows a simple shape to present no concern over damage on exterior shape to display excellent effects for practical applications.

4. BRIEF EXPLANATIUON OF THE FIGURES

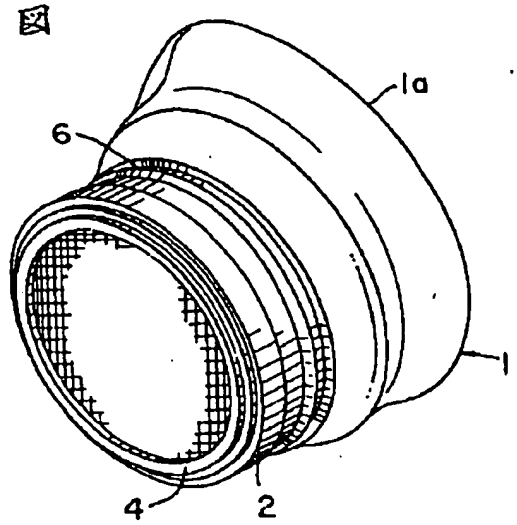
Figure 1 illustrates a diagonal view of smoke and gas mask of this utility model; and Figure 2 illustrates vertical cross sectional view of the same, and Figure 3 illustrates a view that explains actions of this utility model.

1: mask main body, 1a: face contacting part, 1b: front curved part [note: although the original document states curved plat, it may be a misprint of plane part. Translator's note], 2: cylindrical part, 3: circumference groove, 4: filtration container, 5: inner circumference groove for folding purpose, 6: outer circumference groove for folding purpose.

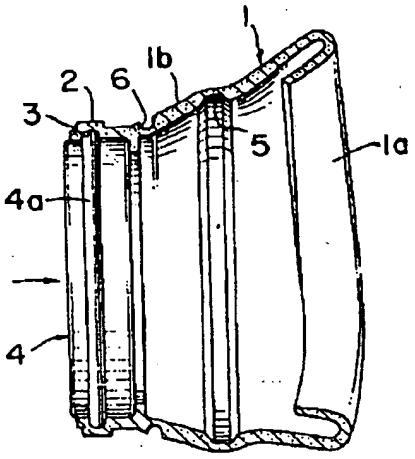
Agent: Kiyoshi INOMATA

Figures 1 through 3
I: Figure

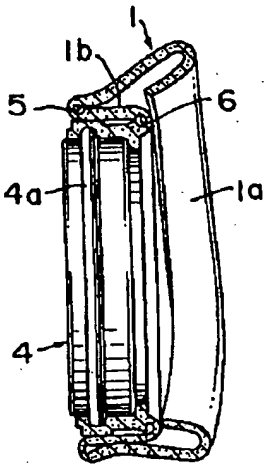
第１図



第２図



第３図



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審査請求　未請求

(全　頁)

(54) 防煙防毒マスク

(21) 実　願　昭58—94260
(22) 出　願　昭58(1983) 6 月21日

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明　　細　　書

1.　考案の名称　　防煙防毒マスク

2.　実用新案登録請求の範囲

可撓性の顔当部を備えたマスク本体の前面部に円筒部を一体に形成し、この円筒部内に戸過容器を設け、上記マスク本体の中程の内がわに折畳用内周溝を形成し、上記前面部の外周に折畳用外周溝を形成したことを特徴とする防煙防毒マスク。

3.　考案の詳細な説明

〔考案の分野〕

本考案は、例えば、有毒ガスを発生する火災時や農薬等の薬剤散布時等に使用される防煙防毒マスクに関する。

〔考案の技術的背景〕

既に提案されているこの種の防煙防毒マスクは、可撓性の顔当部を備えたマスク本体の前面部に比較的に細長い円筒部を一体的に形成し、この円筒

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部の開口部に沪材を充填した円筒形の沪過容器を挿着して構成したものである。

従つて、上述した防煙防毒マスクは、使用時、マスク本体の顔当部を鼻及び口に跨つて被冠し、これによつて、火災時に発生する有毒ガスや、農薬散布時の薬剤を上記沪過容器内の沪材で沪過して、清浄な空気を呼吸し得るようになつている。

〔背景技術の問題点〕

しかしながら、上述した防煙防毒マスクは、沪過容器を挿着した細長い円筒部が前方に突出して形成されている関係上、不使用時に嵩張るばかりでなく、例えば、これをポケットに収納して携帯するのに不便である。又一方、緊急な使用時に、ケースに格納される防煙防毒マスクは、一挙に一工程で顔面に取付けて使用できることが望まれている。

〔考案の目的〕

本考案は、上述した事情に鑑みてなされたものであつて、マスク全体を小形に一行程で折畳んで携帯に便利にするようにしたことを目的とする防

煙防毒マスクを提供するものである。

〔考案の概要〕

本考案は、可撓性の顔当部を備えたマスク本体の前面部に円筒部を一体に形成し、この円筒部内に沪過容器を設け、上記マスク本体の中程の内がわに折畳用内周溝を形成し、上記前面部の外周に折畳用外周溝を形成し、上記両周溝に倣つて一工程でマスク本体を折畳入で携帯し得るように構成したものである。

〔考案の実施例〕

以下、本考案を図示の一実施例について説明する。

第1図乃至第3図において、符号1は、例えば、合成樹脂材による可撓性の顔当部1aを備えたマスク本体であつて、このマスク本体1の顔当部1aは、略三角形をしており、しかも、鼻及び口を被冠し得るように形成されている。又、上記マスク本体1の前面部1bには、円筒部2が一体にして形成されており、この円筒部2の内周面には、断面が円弧状の周溝3が形成されている。さらに、

この円筒部2の周溝3には、沪材を充填したフランジ4aを有する沪過容器4が挿脱自在にして設けられており、この沪過容器4の沪材は、外がわから内がわに向つて、例えば、綱材、不織布、静電沪煙材、活性化炭素繊維材、貴金属触媒、不織布及びスポンジ材を順に配設したものである。

一方、上記マスク本体1の中程の内がわには、折畳用内周溝5が形成されており、上記マスク本体1の前面部1bの外周には折畳用外周溝6が形成されている。

なお、上記両周溝5と6との離間距離は、マスク全体の長さの略1／3程度の距離に形成されていることが望ましい。

従つて、不使用時、第3図に示されるように、マスク全体を折畳んで携行する場合には、上記マスク本体1の顔当部1aと沪過容器4を挿着した円筒部2とを両手で内方へ押圧することにより、一挙に、一行程で上記両周溝5，6とを折目にして折畳むことができる。

因に、本考案は、折畳用内周溝5を外周溝とし、

他方、折畳用外周溝6を内周溝にするように設計変更することは自由である。

〔考案の効果〕

以上述べたように本考案によれば、可撓性の顔当部1aを備えたマスク本体1の前面部1bに円筒部2を一体に形成し、この円筒部2内に沪過容器4を設け、上記マスク本体1の中程の内がわに折畳用内周溝5を形成し、上記前面部1bの外周に折畳用外周溝6を形成しているので、不使用時、上記両周溝5，6を折目としてマスク全体を一挙に、しかも、一行程で折畳むことができるばかりでなく、形状も簡素であるから、外観的な形状も損われるおそれもなく、実用的に優れた効果を有するものである。

4. 図面の簡単な説明

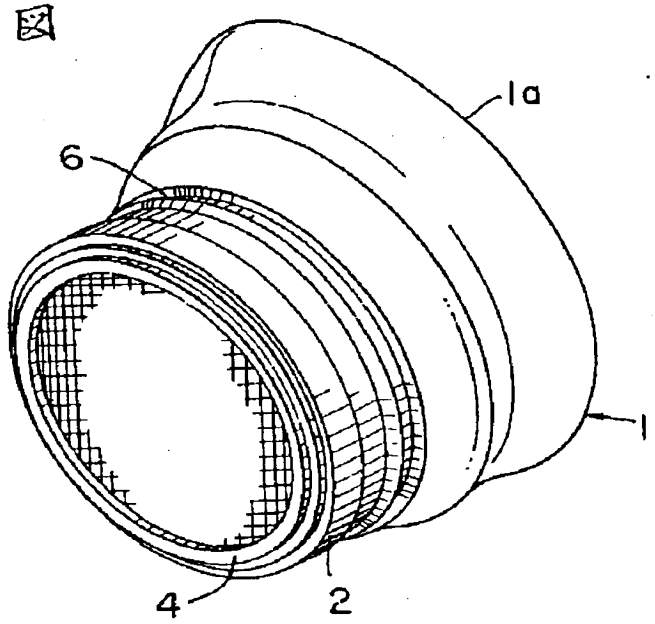
第1図は、本考案による防煙防毒マスクの斜面図、第2図は、同上縦断面図、第3図は、本考案の作用を説明するための図である。

1…マスク本体、1a…顔当部、1b…前曲部、

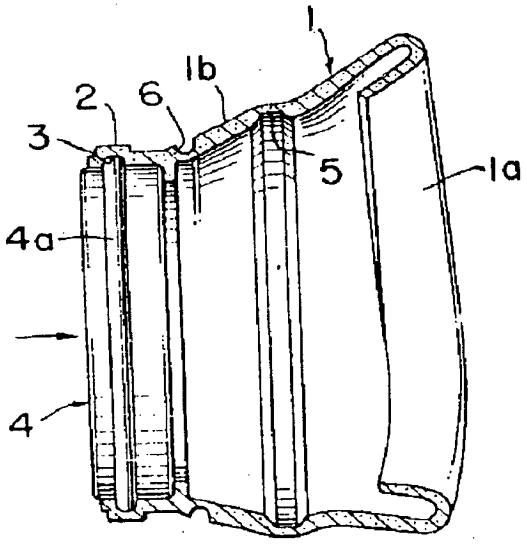
2…円筒部、3…周溝、4…沪過容器、5…折畳用内周溝、6…折畳用外周溝。

出願人代理人　猪股　清

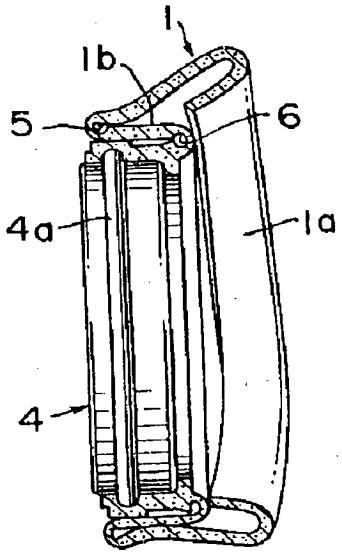
第１図



第２図



第３図



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